class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 1
					Lesson	Lesson 1
					Subject	Explorer in Action

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains how digital technology helps us by making different tasks easier. 2) Explains the features of digital citizenship. 3) Describe "digital technology" and give some examples.
Educational activities	• Take students to the lab and divide them into small groups. • Get to know the world and learn about its uses of digital technology.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• What different kinds of digital technology do you used every day? What Do you use the digital tools for?
Introduce	**Scientists use digital technology in their work, such as the scientist "William Tyner":** - Cultural anthropologist, technologist, filmmaker. - He uses different types of digital technology in many aspects of his works, He works to find real solutions to community problems in work. - He works with different organizations they help to put individuals in contact with people or services that can help them. **The Positive impact of technological use:** - Helping people become successful digital citizens. - Digital communication and helping people communicate is important for exchange opinions and build good relationships. **Ways to help digital technology citizens:** - bills: Payment of dues and financial bills. - Visits: Booking tickets to some archaeological and cultural sites. - Travel: Booking train, bus, and flight tickets. - Knowledge: Thanks to the Website of the EKB and the abundance of information it provides to all. ➔➔All schools encourage students ⬅⬅ to learn about how to use digital responsibly, safely, and intelligently.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 12, p. 13.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 1
					Lesson	Lesson 2
					Subject	Digital Citizenship

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains what it means to be a digital citizen. 2) Explains key concepts of digital citizenship. 3) Discusses how to use ICT tools in an ethically, responsibly, and safely.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the meaning of digital citizenship with a statement of rights and responsibilities to be adhered to.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• What do you think it mean to be a digital citizen?

Introduce	**Digital Citizenship:**
	 The ability to use digital technology ethically, responsibly, and safely
	 This helps you to enjoy and take advantage of digital technology.
	 and protect your digital footprint
	 we learned some techniques that are part digital citizenship, we learned how to:
	 - Be ethical and responsible by treating others online with respect.
	 - Use update software, creating sources references that we find online.
	 - Use the Internet safely by setting strong passwords.
	 - Choose the website wisely and monitoring online screen time.
	
	 Digital Footprint:
	 A record of what you do online, including:
	 The sites you visit, everything you post with others
	 and what others post about you.
	
	 →→This is important to share information, ←←
	 about yourself and others safely and responsibly.
	
	 The Rights and Responsibilities of the Digital Citizen:
	 1- <u>Right:</u> Don't copy your digital Footprint or share it without your consent.
	     Responsibilities: Never commit privacy, with the aim of sharing or selling it.
	 2- <u>Right:</u> engage with others, posting positive ideas without offend other.
	     Responsibilities: Positive behavior with others, and it is better to be face to face.
	 3- <u>Right:</u> Share information while respecting rights and crediting the resources.
	     Responsibilities: Be sure to evaluate what will be viewing or shared,
	                Verify the credibility of the source.
	 4- <u>Right:</u> Use the Internet when needed, while respecting the law
	     Responsibilities: Evaluate how to use it in terms, its purpose, the degree of safety.
	             A good online/in-person balance is important for your well-being.

Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 16, p. 17.

class	Day	Date	Session	Attendance	window	Information and communication technology	
						Them	Theme 1
						Lesson	Lesson 3
						Subject	Positive Impact of ICT

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains how ICT tools aid him socially, intellectually, and educationally. 2) Discusses the efforts made by government providing safe and reliable digital resources. 3) Discusses how technology provides support for people of determination.
Educational activities	• Take students to the lab and divide them into small groups. • Clarify the role of ICT to serving the educational process.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• How have ICT tools made your life easier?
Introduce	Digital citizens can use IT tools to learn, to share and communicate the Egyptian government in 2018 provided digital tools and resources that helped: • Enjoy time through digital books. • Watch videos and channels of educational materials experts. • Its gool is to implement a skills-based education and ensure that all students can access learning materials equally. • The EKB hold webinar for teachers, students, and parents and it makes materials in digital library available to all. Egyptian Knowledge Bank بنك المعرفة المصري **In addition to its importance in helping people with carefree people who suffer from:** • (a non-verbal person) Communicate and learn languages with others using photos. • (Health or other issues) Provide ways to communicate with teachers while providing materials for learning. ➜➜ **Digital tools can be beneficial when**◄◄ **unexpected events affect us, making us unable to leave our homes** **Video sharing platforms:** • Learn or teach new things. • Share skills online. • Post videos you prepared. **Socialzing:** • Connect with others online. • Can work outside of the school on project, virtually. • video Chat with your friend. • Join a group that shares the same interests as sports and games. **One of the most important applications of digital communications** • messaging app (WhatsApp®). • Social media platform (Facebook®). • virtual meetings application (Skype®).
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 20, p. 21.

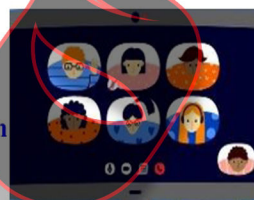| class	Day	Date	Session	Attendance	window	Information and communication technology
						Theme 1
					Them	Theme 1
					Lesson	Lesson 4
					Subject	Internet communication

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses how to use the Internet to communicate with friends, family, and other citizens. 2) Explains the difference between synchronous and asynchronous communication. 3) Determine the ICT tools needed to communication via internet.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the different types of communications and the tools needed for them while mentioning the difference between them
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• How do you use the Internet to communicate with family and friends? Do you always use the same tools communication?
Introduce	**Synchronous communication:** • It is a connection that occurs in the real time whit instant responses between two people. • Exchanged information or files are through various digital tools. **Synchronous communication means:** • **Video chats:** Allows live communication between two or more people via your computer or Phone. **Tools:** A device with a camera, speakers, application, or a computer software for v-chat. • **Instant messaging:** Allows messages to be sent it could include text or also add photos or videos. **Tools:** Internet connection, application, or a computer software for (IM). • **Chat rooms:** Allows communication in groups and is on one topic such as virtual chapters. **Tools:** Internet connection, web browsers or application such as (Internet Explorer®) (Google Chrome®) • **Cell phone application:** An app that provides direct access to different programs such as email, instant messaging, and social media pages, some of application could be per-installed on your devices, Others need to be downloaded. **Asynchronous connection:** • It is a contact that does not require an instant response between two or more people. • Transferring information or files not necessarily at the same time using various digital tools. **Asynchronous communication methods:** • **Email:** Allows sent and received messages, it is a little formal than (IM). you can reach out to a government agency or an official. **Tools:** An internet browser to access a mail site or email application.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 24, p. 25.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 1
					Lesson	Lesson 5
					Subject	How to use e-communication

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses the e-communication etiquette. 2) Explains how to use e-communication. 3) Uses some digital tools to communicate with others.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the etiquette of online communication between people.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, role-playing.
Warm Up	• How do you show proper etiquette when communicating online?

Introduce	**Use ICT tools to communicate:**
	• **(Video chats): To start the conversation:**
	- **Create a conversation (be responsible):** Create a conversation link, and send it to participants, to allow them to participate.
	- **Join a conversation (be a participant):** Click on the conversation link and wait for you to be allowed in.
	- **To answer the conversation:** Click on the icon (phone/video), and make sure the microphone and camera are turned on.
	- **The person in charge of call may mute people's microphones, and we can any time mute our microphone or turn off the camera.**
	- **If the camera is on:**
	  ✓ Anyone who in the call able to see you.
	  ✓ Be sure to wear properly dressed and behave as if you were out in public.
	  ✓ Make sure there's nothing in your background that indicates your address or any personal information that you don't want to share.
	
	• **(Chat rooms):**
	- You can simply type and submit your comments.
	- Reply to messages. Some participants may reply to your message.
	- Remember that anyone with access to the chat room will be able to read your messages.
	- Be polite, helpful, and positive.
	
	• **(Instant messaging):**
	- Click on the name of the person you want to chat with, type your message, and click on the Send icon.
	- It's a fun and casual way to communicate.
	- You can use short phrases instead of full sentences, emotions, or image to communicate.
	- It is important to show manners.
	
	• **(Email):**
	- Used in more formal situations, such as creating an account on the EKB or messaging your teacher.
	- To send an email to someone, type their email address into the "To:" field, Provided clear Subject information in the "Subject:" line.
	- Make sure you use proper grammar, be polite and clear, and use greetings and endings.
	- If you send attachments, make sure the information you send is safe and accurate.

Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 28, p. 29.

class	Day	Date	Session	Attendance	window	Information and communication technology
						Them — Theme 1
						Lesson — Lesson 6
						Subject — Online learning environment and sources

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains the purpose of online learning environments. 2) Discusses online learning sources. 3) Explore questions with links to other school subjects.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the different sources of online learning and show the importance of reliable sources.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• How have online learning tools helped you learn about a particular topic
Introduce	• Online learning environments allow teachers and student to communicate with each other, no matter where they are. • Teachers can provide virtual lessons and upload quizzes and homework assignments for students to access they can also send message to their teacher and post their completed assignment like "Edmodo®". There are multiple online learning sources that help to learn about different subject. such as: • **Egyptian Knowledge Bank (EBK):** - Theis is Egypt's premier online library. - It contains sources for a variety of subjects. - It allows you to research and examine different topics, digital articles, and videos just by clicking on them. • **(Vlaby):** - A virtual lab platform - That enable students and teachers to do lab experiments in an interactive environment. - It's not only informative, but fun too! • **(National Geographic Kids):** A popular online source for kids to find information on a variety of subjects, including animals, science, history, and geography. • **(Mapmaker Interactive):** - A special interactive feature delivered by National Geographic. - Provides online world mapping tools for students and teachers. - Map themes, data and tools are used. ➤➤Reliable online digital tools are invaluable sources of information◄◄ The mapmaker interactive is one of the safest sites for research and data collecting.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 32, p. 33.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 1
					Lesson	Lesson 7
					Subject	Planning digital searches

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses reliable and unreliable sources online. 2) Explains how to plan and conduct digital search. 3) Discusses how to gather and present information using online sources.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the elements needed to perform a reliable digital search and identify its steps.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• Think about what you already know about choosing online sources. • Which types of sources would you aim to use in digital search? • Which types would you avoid? Explain why.
Introduce	• **Conducting a digital search for reliable content** ✓ **(Plan before Conducting a digital search),** It will help you focus on the information you're trying to gather. 　1) Choose your search topic. What do you already know about it? What else do you want to learn about it? Think and write notes. 　2) Choose the types of online sources you will use. Remember that a digital search can include sources (audio, videos, and image), not just text sources. 　3) Prepare to evaluate the types of sources you've chosen. Are they reliable or unreliable? ✓ **(Focus on the topic you're researching),** Once you find information that seems to answer your questions, evaluate it. Is it reliable? 　❖ **Reliable sources:** 　Reliable sources are articles or information written and verified by experts. The information in presented in a professional fashion, and the source information is well-written, without grammar or spelling mistakes. 　❖ **Unreliable sources:** 　You may find correct information on social media site, such as: (Facebook®, wiki, blogs) you well find information full of opinions errors, and even lies. You must be wary of information you find on these types of sources. ✓ **(Take thorough notes, after you determined that the information is reliable),** 　- Be sure to write down what you're going to use from the source material. 　- Don't forget to cite the source information in your note, you will need to credit the source in your report. ✓ **(Organize and write your report)** 　- After you've completed your online search, gather your note and reliable source information. 　- Use your notes to write an outline, this will help you present the information in your report in a logical way. ✓ **(Write an outline),** an outline should include: 　1) An introduction that introduces the topic of the report. 　2) Supporting paragraphs that present the information. 　3) A conclusion or final thoughts on the information that you have presented.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 36, p. 37.

class	Day	Date	Session	Attendance	window	Information and communication technology		
					Them	**Theme 1**		
					Lesson	**Lesson 8**		
					Subject	Synchronous and asynchronous communication		

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses how to use synchronous and asynchronous communication. with teachers and classmates. 2) Connected using digital tools. 3) Discusses how to report findings using digital tools.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the difference between synchronous and asynchronous communication and the most appropriate reason for their selection.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• Think about your findings from the digital search you conducted in Lesson 7 • How might you communicate this information to your teacher using the appropriate digital tools?
Introduce	• **The Internet allows us to communicate instantaneously, so we can send messages, and check doubts with people who are not present.** • **But instant communication is not always a good thing, sometimes we need to give ourselves or others time to consider information we send, our question or their answer so it's important to know when each type of communication is appropriate.** **Synchronous communication is appropriate:** - **Between friends or close family.** - **When information is urgent or needs to be transmitted quickly.** - **When information is about day-to-day matters.** - **When the answer does not require very much thought or preparation.** **Asynchronous communication is appropriate:** - **among people who don't know each other well.** - **When the information is important but not urgent.** - **When the information is about sensitive or complex matters.** - **When the answer requires thought and preparation.** ➡➡**Remember**⬅⬅ **online learning environments include** **synchronous and Asynchronous methods of communication,** **choose the correct tool depending on the situation.**
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 40, p. 41.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 1
					Subject	Explorer in Action

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Describes different types of software and how they are used. 2) Discusses the role of different digital applications. 3) Identifies ways in which ICT tools help are wildlife.
Educational activities	• Take students to the lab and divide them into small groups. • Getting to know the scientist "Gautam Shah" and how he uses augmented reality technology through the "Internet of Elephants" organization.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• What do scientists want to find out when they look for animals in the wild?

Introduce	**Scientists use digital technology in their work,** such as scientist "Gautam Shah"
	• He is an "IT specialist" in many countries around the world.
	• Founder of the " Internet of Elephants" organization.
	• He decided to use his skills to make a positive impact on wildlife.
	• He began to look into ways that technology could be used for wildlife conversation, it is (protecting animals in their natural habitats).
	• He believes in using technology and online games to bring wildlife into people's daily lives, for that reason, he set up the organization.
	
	" Internet of Elephants" organization:
	• Uses ground-breaking digital tools to connect people with wildlife around the world.
	• Her team works with other animal conservation organizations from all over the world, and uses the data they collect by, (GPS) to create interactive online games.
	• The organization creates unique mobile games, using:
	  ◦ Augmented reality.
	  ◦ Data visualization that allow people to interact with amazing creatures.
	  ◦ Let's you virtually see the real environment of the things you would like to see.
	  ◦ Presents you with information about them through screen and digital tools made specifically for this purpose.
	  ◦ The games tell the story of individual animal and players can follow their daily lives.
	  ◦ These mobile games enable you can interact with amazing animals in countries close to your country or far away.
	
	➜➜He hopes " Internet of Elephants"⬅⬅
	is the start of a new approach to engaging the public with wildlife.

Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 48, p. 49.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 2
					Subject	Problem-solving skills

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains the steps involved in problems solving. 2) Discusses how to break down big problems into smaller sections. 3) Analyzes and solve a problem.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the steps to solving the problem, with some examples of the previously studied problems.
Knowledge sources	School Book, EKB.
Educational means	Computer, Schoolbook, Educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• Think about a problem you had with your phone or any other digital device. What was it? • Were you able to solve the problem? If so, how? If not, what did you learned?
Introduce	**Problem solving steps:** Solving a problem can sometimes seem difficult, so you must take steps to make problem-solving easier. Here are some common steps that you can take: - Construct a Hypothesis: A Hypothesis is an educated guess about how things work. It is an attempt to answer your question with an explanation that can be trusted. - Test your Hypothesis: Don't conduct which is not safe. - Was your test successful? If not, don't worry, we learn from our mistakes. What did you learn? How can this help you make your next Hypothesis? **Breaking down problems into smaller sections:** **Some ICT problems may be more complicated than others.** - Work on solving such problems in small section, step-by-step the real-world problem below. - If you have a group of people solve a problem, assign each person one section. ➡➡When solving larger ICT problems⬅⬅ Break them down just like the real-world example above.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 52, p. 53.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 3
					Subject	Presenting information to others

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses how to best present information to others. 2) Explains the necessary digital needs of simple projects. 3) Discusses basic design concepts.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the digital tools and concepts needed to present and display information.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• Think about presentations your teachers and classmates given in the class? • Was there one you particularly enjoy? What kept you interested?
Introduce	**Digital tools to presenting information:** - When you are presenting information, think about the digital tools you'll need to present it, Such as a digital poster or a billboard. - You'll need to use software that will allows you to create it, (Microsoft Office 365), which includes different options, to choose from: ✓ (PowerPoint®) . ✓ (Publisher®). ✓ (Word®). - To access the (Microsoft Office 365) bundle, make sure your digital computer is up to date to supports the software. When creating your poster or billboard, think about the following digital concepts: ❖ **Margins:** • The space left around the edges of the poster or the billboard. • It's important to crowd the edge of a poster or billboard, it will appear of cramped. • A 25 mm margin will help design a good poster. ❖ **Font size and type:** • You want your audience to be able to easily see your information. - If you choose a small font size, they will have to strain to read the information. - If you choose a font size that's too big, you'll have to limit the amount of information. • Always be sure to choose a font size that's easy to read. • There are many fonts you can choose. • Sometimes simple is better, a complicated or decorative font is distracting and hard to read. ❖ **Colors:** • Choose the colors that get your message across, choose color combinations that match. • It's better not to use more than 3 colors in a poster and take into consideration the color of the background when choosing the font color. ❖ **Image:** • They should also make sense in terms the content you are share, Use clear, good-quality, and appropriate image.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 56, p. 57.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 4
					Subject	Digital applications

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Explains how to use reliable sources to conduct a search for information. 2) Explains some uses and features of Word and Excel. 3) Explains how to use Word and Excel to present and share information.
Educational activities	• Take students to the lab and divide them into small groups. • Explain search sources when collecting information and taking advantage of Word and Excel to share information.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• What impact does human behavior have on the environment? What animals and plants are impacted in your area by human behavior?
Introduce	**When you research you need to use a variety of sources, including:** • Print: Books, articles, newspapers, encyclopedias • The Internet: a search engine, specialized websites, e-learning sites, the EKB and similar authoritative online sources. • Interviews: With people who have experience, are affected by, or who have studied the topic. **Evaluating sources:** The source will tell you how reliable the information is and if you can trust the information true, there are many ways to evaluate the source, these including: - Is the author a respectable person or institution? - Does the source provide evidence and cite other sources of information that you can check? - How current is the information? - Does the source state opinions or facts? - Is the information presented with a bias or unbiased? **Using Microsoft (Excel) .** - To record the data you collected, you'll need one program that is common in collecting information. - Excel allows you to create a spreadsheet with as many columns and rows as much as you need. - Excel is often used to present numbers as the program can add up numbers automatically. - Excel is a wonderful way to collect information to collect your ideas. **Using Microsoft (word).** - Word allows you to present your ideas in a variety of ways, Word is most commonly used to write out what you want. - You can do so much more! You can change the design, add photos, and link your report to websites or information online.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 60, p. 61.

class	Day	Date	Session	Attendance	window	Information and communication technology		
					Them	Theme 4		
					Lesson	Lesson 5		
					Subject	Algorithms		

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses the concept of algorithms. 2) Explains how a search engine uses algorithms. 3) Explains how to solve a problem using an algorithms.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the meaning of algorithms with giving some practical examples of them from daily life.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• How dose following a process help you solve a problem?
Introduce	We learned how to use search engines to gather information online. Every time you type the keywords into a search engine, the engine uses algorithms to provide results and help it to decide which result will be more relevant to you. **(Algorithms):** It is a series of steps that explain how to explain who to do a task, such as: • If you're using a search engine to find directions to a place, it will use a database of names and information from digital maps to provide you the results. • When you make a meal, you follow a recipe which is a type of algorithm! The recipe includes a set of instructions that will successfully lead you to make that meal. • Routine work such as cleaning your room, is an algorithm. • When you do a word problem in math class, you will often have to break the question down, you will solve it in a series of steps. These steps are the guidelines needed to solve the problem. ➔Computers and applications use algorithms⬅ to perform specific tasks. When you input the keywords, you are searching for, The search engine takes steps to provide results ➔If your wording is not specific enough⬅ the engine's algorithm may not be entirely accurate.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 64, p. 65.

class	Day	Date	Session	Attendance	window	Information and communication technology	
						Information and communication technology	
					Them	**Theme 4**	
					Lesson	**Lesson 6**	
					Subject	**The principles of coding**	

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses the concept of coding. 2) Explains what he can create using coding programming. 3) Discusses how coding is another example of a problem-solving.
Educational activities	• Take students to the lab and divide them into small groups. • Explaining the concept of programming, introducing the website (Code.org) and its benefits in learning coding.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, Role-playing.
Warm Up	• What types of animations or video games do you prefer or attract your attention? Explain why.
Introduce	Think about online animations and movies you've viewed, and the online games you've played, they were created using coding. **(Coding):** It is the writing of multiple algorithms to create a complete program. **(Code):** Enables you to create animations, movies, and games using code, and create them in different coding languages. → **Just like people, Computers speak different languages ←** **(Code.org)That Can help you learn to code,** **using different coding languages** • Have you ever created a maze, and provided instructions to solve it? • Instructions for amaze are like Instructions in computer programs. • Think about the steps you can use to get through the maze. • The steps contain the number of spaces to take, and in which direction. follow these steps to get through the maze! → **You can create mazes on (Code.org)←** Mazes are just example of things you can create, using coding.
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 68, p. 69.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 7
					Subject	Graphic art

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses how to use Graphic programs. 2) Discusses how to add some visuals (such as photos, illustrations, texts) to presentations. 3) Explains how to add and edit photos.
Educational activities	• Take students to the lab and divide them into small groups. • Explanation of the steps to open the Paint program and how to use it and benefit from it.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, Role-playing.
Warm Up	• How do you think visuals aids (like drawings and photos) can help presentations?
Introduce	• It's easy to create your own drawing or edit image on computers. • A popular graphic editor (Microsoft Paint). ✓ To open the program, click on the (Accessories) in the (Start-up menu). ✓ find paint and click on it. • you'll notice that the top of the screen is like (Word) processor and (Excel). There's (menu bar) and (toolbox). • The menu bar includes options for opening and saving files, • The editing features on the menu bar include the ability to edit colors and images. • The toolbox includes all the tools that you'll need to make your drawing, including: <table><tr><td>Eraser</td><td>Pencil and brush</td><td>Text</td><td>Rectangle</td><td>line and curve</td><td>Airbrush</td><td>Ellipses</td><td>Magnifier</td><td>Fill</td><td>Select</td></tr></table> • You can edit photos in Paint, You can ✓ Fill colors using the color options. ✓ Select area of the photo to use in your drawing by (cropping). ✓ Add Text to a photo. ✓ Change the size or direction of the photo. • (Microsoft Word) also offer graphic tools to create a graphic, Click on the (Insert Menu bar), to see the different options, such as: ✓(Shapes). ✓ (Icons). ✓ (3D models). ✓ (Smart Art).
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 72, p. 73.

class	Day	Date	Session	Attendance	window	Information and communication technology
					Them	Theme 4
					Lesson	Lesson 8
					Subject	Create a PowerPoint presentation

Learning outcomes	**At the end of the lesson the pupil should be able to:** 1) Discusses the elements of a presentation. 2) Discusses the PowerPoint features. 3) Present information on a specific topic using PowerPoint.
Educational activities	• Take students to the lab and divide them into small groups. • Explain the steps to open the program with an explanation of how to deal with the various menus and tools.
Knowledge sources	School Book, EKB.
Educational means	Computer, schoolbook, educational videos.
Learning strategies	Brainstorming, dialogue and discussion, research, and exploration.
Warm Up	• What are the elements of a good presentation?
Introduce	• You can used (Microsoft PowerPoint®) to create presentations that include text, animations, images, and special effects. • To create a presentation using (Microsoft PowerPoint®): - Click on the presentation icon on your computer. Then click (blank presentation). • The program's opening screen: ✓ At the top you will see a menu bar with multiple (tabs). ✓ Each tab contains a set of tools that you can use to create your presentation. ✓ (A Slide) that will instruct you to click and type a title. ✓ Use this first slide to name the title and subtitle of your presentation. ✓ Type the information in the text boxes. • Slide: ✓ Is a presentation page that contains text and image. ✓ on the left side of the screen, you will see a (thumbnail), or preview image, of each slide you're creating. • click (new slide) to add another slide to your presentation, To choose the (layout) of each slide, click the icon on the (Home menu). • Adding text: click on the text box on the screen, choose the font style and size, you'd like to use, type your text. • Adding visuals and effects: PowerPoint includes numerous visual tools to help make your presentation stand out ✓ (Design). ✓ (Draw). ✓ (Transitions). ✓ (Animations). ✓ (Slide show). ✓ View the presentation by clicking the "view show" icon or by clicking the (F5) key in the keyboard. • Inserting pictures: click on insert, then pictures. Choose the options you need from the menu bar, once you choose your image, drag it with your mouse into the slide. • Keep the following features in mind when creating your presentation: ✓ Avoid wordy paragraphs or sentences. ✓ Be sure to use a font size and style is readable. ✓ Use relevant images instead of text whenever possible. ➔Practice your presentation in advance← Be engaging and encourage audience participate
Evaluation	The student self-evaluates himself based on access to the learning outcomes associated with the lesson.
Assessment	Solve School Book Questions p. 76, p. 77.